

EXHIBIT 178

REDACTED

Google XFP+AdX Revenue Optimization via Cross-Priority Ranking

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AdX Tech Talk

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Outline



- **Introduction**
- **Online Ad Allocation**
 - **Matching Ranker: Primal-Dual Approach**
- **Cross-Priority Ranker with AdX**
 - **Problem Definition: Priority Levels**
 - **Different Solutions**
 - **Our Solution: Cross-Priority Ranker**
- **Evaluation and Current Status**
 - **Offline and Live Experiments**
 - **Delivery and eCPM lift**
- **Future Opportunities**

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